

**AMENDMENTS TO THE CLAIMS**

1. (original): A recombinant polyketide synthase gene that encodes a loading module comprising a KSQ domain, an AT specific for ethylmalonyl CoA, and an ACP domain.
2. (currently amended): A host cell that comprises the recombinant polyketide synthase gene of Claim 1, wherein said host cell further comprises a recombinant gene selected from the group consisting of recombinant ~~ccr and icm~~ crotonyl CoA reductase (*ccr*) and isobutyryl CoA mutase (*icm*) genes.
3. (withdrawn): A method for the production of 14,15-propenylerythromycin and/or the corresponding 14,15-propenyl-6-deoxyerythronolide B, which comprises culturing a recombinant host cell that expresses isobutyryl CoA mutase, valine dehydrogenase, butyryl CoA dehydrogenase, and 6-deoxyerythronolide polyketide synthase.
4. (withdrawn): The method of Claim 3, wherein said host cell is a *Saccharopolyspora erythraea* host cell.
5. (withdrawn): The method of Claim 4, wherein said host cell does not express a functional *eryM* gene product.
6. (withdrawn): The method of Claim 3, wherein said butyryl CoA dehydrogenase is expressed from a gene isolated from *Clostridium acetobutylicum* or *Mycobacterium tuberculosis* (*fadE25*).
7. (new) The recombinant polyketide synthase gene of claim 1, which further comprises two or more extender modules, wherein at least one extender module has an AT domain specific for malonyl CoA.
8. (new) The recombinant polyketide synthase gene of claim 7, which further comprises five or six extender modules, wherein at least one extender module has an AT domain specific for malonyl CoA.

9. (new) The recombinant polyketide synthase gene of claim 7, further comprising six extender modules specific for methylmalonyl CoA.

10. (new) The host cell of Claim 2, wherein said host cell comprises a recombinant crotonyl CoA reductase (*ccr*).

11. (new) The host cell of claim 10, wherein the crotonyl CoA reductase is from *Streptomyces coelicolor*.

12. (new) The host cell of claim 10, wherein the crotonyl CoA reductase is from *S. collinus*.

13. (new) The host cell of Claim 2, wherein said host cell comprises a recombinant isobutyryl CoA mutase (*icm*).

14. (new) The host cell of Claim 13, wherein said host cell comprises a recombinant *icmA*.

15. (new) The host cell of Claim 13, wherein said host cell comprises a recombinant *icmB*.

16. (new) The host cell of claim 13, wherein the *icm* is from *S. cinnamonensis*.

17. (new) The host cell of claim 2, which is a *Saccharopolyspora* host cell.

18. (new) The host cell of claim 2, which is a *Streptomyces* host cell.

19. (new) The host cell of claim 2, which is an *E. coli* host cell.